

**Work Order ID 79322****\*79322\***

Page 1

January-24-12 3:57:55 PM

Item ID: D206-642-541

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Replacement Skidtube

Start Date: 24/01/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 02/02/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan: M.C.J.Date: 12/01/24

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D3274

D

100

0.00

**\*100\***

DOCUMENT CONTROL


DC

Memo

0.00

Document Control

Photocopy bluefile &amp; type labels per PPP D206-642-541 CHG003

N/A 

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 79322

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Item ID: D206-642-541

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**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Replacement Skidtube

Start Date: 24/01/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 02/02/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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110

0.00

**\*110\***

Skidtubes

0.00

Skidtubes

Memo

\*\*\*VERIFY AND INSPECT THE MATERIAL PRIOR TO USE\*\*\*

1- Bend FWD end of tube using bend prog D3274 FWD and foil 10 as per dwg D3274, cut fwd end of tube with saw table setup D3274.

*REMOVE BENDING MARK*

2- remove fwd indexing ridge as per dwg D3274. Prepare for welding

3- weld fwd cap as per dwg D3274 and QSI004

AR Aluminum Rod Batch: *m120104*

4- grind fwd cap weld on top surface only

5- Cut AFT end of tube at 170.9" as per dwg D3274 and deburr end.

6-Drill Aft cap pilot hole using DT8025

7 -Cleco DT8025 in position and install pilot hole drill Jig DT8742A,B,C,D. Drill 3/16" pilot holes as per Dwg D3274

8 -Remove inner indexing ridge on aft end of skidtube as per Dwg D3274 scribe batch #

9 -Open aft end cap holes to Ø0.208" as per Dwg D3274. Deburr aft end.

*DC 12/02/22*  
*9/1/92-02-28*

*3BE 12/02/29*

*BB 12/03/01*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

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**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Replacement Skidtube

Start Date: 24/01/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 02/02/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date:

Run Start **\*NR1\***

QC: Date: SPC (Y/N): Date:

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
114	QC5- Inspect part completeness to step on W/O	0.00							
<b>*114*</b>									
QC	Memo	0.00							
Quality Control									
116	QC10- Inspect visual per QSI004- ground welds	0.00							
<b>*116*</b>									
QC	Memo	0.00							
Quality Control									
120	Chemical Conversion Coat per QSI005 4.1	0.00							
<b>*120*</b>									
HandFinish	Memo	0.00							
Hand Finishing									

12-03-02

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

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Item Name: Replacement Skidtube

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**\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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130

QC3- Inspect Part Finish

0.00

**\*130\***

QC

Memo

0.00

Quality Control

①

SAD 12-03-02

150

Skidtubes

0.00

**\*150\***

Skidtubes

Memo

0.00

Skidtubes

1-Open Ø0.313" and 0.375" crossbolt spacer holes as per Dwg D3274

2-Deburr crossbolt spacer holes as per Dwg D3274 and blow out chips from inside the tube

3-Bond web in place as per Dwg D3274 & QSI 015.

A/R Sikaflex-291 7119899

Sikaflex expire date: 2012-08-13

Start: 0012-02-02 Time: 3h 00

Finish: 01/03/13 Time: 9:15

(Adhere for 12 hours)

>

B 12/03/02

SAD 12-03-02

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Replacement Skidtube

Start Date: 24/01/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 02/02/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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160

QC5- Inspect part completeness to step on W/O

0.00

**\*160\***

QC

Memo

0.00

Quality Control

DP

12-3-5

170

Skidtubes

0.00

**\*170\***

Skidtubes

Memo

0.00

Skidtubes

1-Bend AFT end of tube using bend prog. D3274 AFT as per dwg D3274. Install drop pins in crossbolt spacer holes to maintain web position.

2- DRILL PILOT HOLES FOR WEARPLATES USING D3274-1T2  
OPEN HOLES TO .297" . Deburr

3-DRILL TOE PIN HOLE .640" DIA AS PER DWG USING DT8935 FWD  
END OF TUBE  
DEBURR INSIDE OF HOLE AS NECESSARY (DO NOT ENLARGE HOLES)  
REMOVE ANY FOREIGN OBJECTS INSIDE OF TUBES

4- Countersink crossbolt spacer holes as per Dwg D3274

5- prepare for welding

SAD 12-03-05

SAD 12-03-12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng/ Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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**NOTE:** Date & initial all entries

**\*79322\***

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**Accept**

**\*N900040100\***

Setup Start \*NS1\*

Stop \*NS2\*

**Start Date:** 24/01/2012      **Start Qty:** 1.00

**\* 1 \***

**Cust Item ID:**

**Required Date:** 02/02/2012      **Req'd Qty:** 1.00

**\* 1 \***

**Customer:**

**Reference:**

**Approvals:**      **Process Plan:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Tooling:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop \*NR2\*

### Operation Description

## Set Up/ Run Hours

## Tool ID

**Tool #**

## Plan Code

**Accept  
Qty**

Reject  
QtyReject  
Number

**Insp.  
Stamp**

180

QC5- Inspect part completeness to step on W/O

0.00

**\*180\***

QC

## Memo

0.00

## Quality Control

190

0.00

**\*190\***

## Skidtubes

## Skidtubes

## Memo

0.00

## Skidtubes

1-Insert D2649 & D3275-1 crossbolt spacers. Weld as per QSI 004 and Dwg D3274. Remember to back drill each hole before welding the other side. Use aluminum rod

A/R Aluminum Rod *M/20/64*

3-Grind cross bolt welds flush as per Dwg D3274.

4-Counterbore 5/16" x 0.750" deep as per Dwg D3274 and deburr.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 79322****\*79322\***

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Item ID: D206-642-541

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Replacement Skidtube

Start Date: 24/01/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 02/02/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

200

QC5- Inspect part completeness to step on W/O

0.00

**\*200\***

QC

Memo

0.00

Quality Control

210

QC10- Inspect visual per QSI004- ground welds

0.00

**\*210\***

QC

Memo

0.00

Quality Control

220

Pressure Wash per QSI005 4.3

0.00

**\*220\***

HandFinish

Memo

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch

Xp m-l 12/03/17

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 79322

**\*79322\***

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Item ID: D206-642-541 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Replacement Skidtube  
 Start Date: 24/01/2012 Start Qty: 1.00 **\*1\*** Cust Item ID:  
 Required Date: 02/02/2012 Req'd Qty: 1.00 **\*1\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
230	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
<b>*230*</b>	<i>M120203</i>					<i>1</i>	<i>132</i>	<i>123-19</i>	
Powdercoat	Memo	0.00							
Powder Coating	START TIME: <i>11:25</i> OVEN TEMPERATURE: <i>320°</i> FINISH TIME: <i>11:35</i>								
240	QC3- Inspect Part Finish	0.00							
<b>*240*</b>									<i>IXP M/L 12/03/20</i>
QC	Memo	0.00							
Quality Control									
250	HandFinishing	0.00							
<b>*250*</b>									<i>IXP M/L 12/03/20</i>
HandFinish	Memo	0.00							
Hand Finishing	1-Install Nut Plate as per Dwg D3274. Apply LPS-3 to Nut Plate and rivets. A/RN/ALPS-3 <i>m1145a6</i> 2-Install inserts as per Dwg D3274. Use a drop of Sikaflex inside insert holes a A/RSikaflex-291 <i>m1199a6</i> Sikaflex expire date: <i>12/08</i>								

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Item ID: D206-642-541

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**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Replacement Skidtube

Start Date: 24/01/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 02/02/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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260

QC5- Inspect part completeness to step on W/O

0.00

**\*260\***

*CP 12.03.20*

QC

Memo

0.00

Quality Control

Inspect Nut Plate & Inserts

270

0.00

**\*270\***

HAND FINISHING RESOURCE #1

HandFinish

Memo

0.00

Hand Finishing

1-Install wearpads & gaskets as per Dwg D3274.

2-Install ring as per Dwg D3274

A/RSikaflex-291

Sikaflex expire date:

3-Inspect for foreign objects as per QSI 024

4-Spray inside of tube on both sides of web with LPS-3

A/R LPS-3

Batch:

5-Install Aft Cap and seal with Sikaflex. Clean excess adhesive.

A/RSikaflex-291

Sikaflex expire date:

*IX 9 M / 12/03/20*

*m119999  
12/08*

*WLA*

*m119999  
12/08*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
280	QC5- Inspect part completeness to step on W/O	0.00							
<b>*280*</b>									
QC	Memo	0.00							
Quality Control									
290	Identify as per dwg & Stock Location: _____	0.00							
<b>*290*</b>									
Packaging	Memo	0.00							
Packaging									
300	QC21- Final Inspection - Work Order Release	0.00							
<b>*300*</b>									
QC	Memo	0.00							
Quality Control									

1 BL 12321

PP 74556

12/3/21

12/3/22

ME 12-03-121

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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# Picklist Print

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Work Order ID: 79322

\*79322\*

Parent Item: D206-642-541

\*D206-642-541\*

Parent Item Name: Replacement Skidtube

Start Date: 24/01/2012

Required Date: 02/02/2012

Start Qty: 1.00

Required Qty: 1.00

## Comments:

IPP Rev:B05.09.23 Revised per D206-642 Rev. JKJ/JLM

IPP Rev:C 07-02-23 Added SS Wearplates & Gaskets JLM

IPP Rev:D 07-12-06 replace NAS1515H3L to D3672-1 DD

IPP Rev:E 08-04-17 as per PAR 08-015 DD verified by:EC

IPP Rev:F 08-06-02 add comment DD verified by:EC

IPP Rev:G 08-10-09 revise details DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2600-1-190		Manufactured	No			110	Each	135.0000	1	1			
*D2600-1-190*									**			12/02/22	
Extrusion Round 3" 206													

### Location

### Loc Qty

### Loc Code

HALL

53

69622

53

LG

82

76912

82

D3285-1

Manufactured

No

110

Each

68.0000

1

1

\*D3285-1\*

\*\*

Cap

### Location

### Loc Qty

### Loc Code

LG002

68

52511

21

52647

47

D3282-041

Manufactured

No

150

Each

17.0000

1

1

\*D3282-041\*

\*\*

Float Web (206L/407)

### Location

### Loc Qty

### Loc Code

LG

17

74294

7

77498

10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

January-24-12 3:57:58 PM

Page 2

Work Order ID: 79322

**\*79322\***

Parent Item: D206-642-541

**\*D206-642-541\***

Parent Item Name: Replacement Skidtube

Start Date: 24/01/2012

Required Date: 02/02/2012

Start Qty: 1.00

Required Qty: 1.00

D2649

Manufactured No

190

Each

559.0000

12

12

**\*D2649\***

Cross Bolt Spacer

**\*\***

*BE 12/03/13*  
*B 79565 \*12*

Location

Loc Qty

Loc Code

LG

40

77574

40

LG001

519

65317

1

68224

2

68507

11

71355

2

72704

2

72841

11

73390

8

73857

21

73858

53

73859

4

73860

4

78020

400

D3275-1

Manufactured No

190

Each

276.0000

12

12

**\*D3275-1\***

Crossbolt Spacer

**\*\***

*BE 12/03/13*

Location

Loc Qty

Loc Code

LG002

276

66930

106

73393

118

74437

52

*12*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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**NOTE:** Date & initial all entries



# Picklist Print

January-24-12 3:57:58 PM

Page 3

Work Order ID: 79322

**\*79322\***

Parent Item: D206-642-541

**\*D206-642-541\***

Parent Item Name: Replacement Skidtube

Start Date: 24/01/2012

Required Date: 02/02/2012

Start Qty: 1.00

Required Qty: 1.00

CR3212-4-03

Purchased

No

250

Each

1,646.000

2

2

**\*CR3212-4-03\***

Cherry Rivet

\*\*

*m/d 12/03/20*

Location

Loc Qty

Loc Code

FP002

656

114859 ✓

656

ST331

990

110139

2

119017

988

D3415-041

Manufactured

No

250

Each

28.0000

1

1

**\*D3415-041\***

Nut Plate

\*\*

*m/d 12/03/20*

Location

Loc Qty

Loc Code

ST042

28

67605 ✓

28

CCR264SS3-3

Purchased

No

250

Each

881.0000

2

2

**\*CCR264SS3-3\***

Cherry Rivet

\*\*

*m/d 12/03/20*

Location

Loc Qty

Loc Code

ST331

881

113973

2

117849 ✓

135

119017

744

ALS4-1032-130

Purchased

No

250

Each

1,250.000

78

78

**\*ALS4-1032-130\***

Insert

\*\*

*120181*

*m/d 12/03/20*

Location

Loc Qty

Loc Code

ST280

1155

119084

1155

ST281

95

119632

95

*78*

*\**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

January-24-12 3:57:58 PM

Page 5

Work Order ID: 79322

**\*79322\***

Parent Item: D206-642-541

**\*D206-642-541\***

Parent Item Name: Replacement Skidtube

Start Date: 24/01/2012

Required Date: 02/02/2012

Start Qty: 1.00

Required Qty: 1.00

D3535-15

Manufactured No

270 Each

20.0000

1 1

**\*D3535-15\***

Wearshoe

\*\*

*m-l 12/03/20*

Location

Loc Qty

Loc Code

FP001

20

73315

8

74512 ✓

12

D3535-35

Manufactured No

270 Each

18.0000

1 1

**\*D3535-35\***

Wearshoe

\*\*

*m-l 12/03/20*

Location

Loc Qty

Loc Code

FP001

18

67598

1

70815

1

73311

4

74509

12

D3535-39

Manufactured No

270 Each

30.0000

1 1

**\*D3535-39\***

Wearshoe

\*\*

*m-l 12/03/20*

Location

Loc Qty

Loc Code

FP001

30

69759

1

73316 ✓

17

74513

12

D3535-23

Manufactured No

270 Each

31.0000

1 1

**\*D3535-23\***

Wearshoe

\*\*

*m-l 12/03/20*

Location

Loc Qty

Loc Code

FP001

31

73314 ✓

20

74508

11

January-24-12 3:57:58 PM

Shop Packet Print

Page 5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

January-24-12 3:57:58 PM

Page 6

Work Order ID: 79322

\*79322\*

Parent Item: D206-642-541

\*D206-642-541\*

Parent Item Name: Replacement Skidtube

Start Date: 24/01/2012

Required Date: 02/02/2012

Start Qty: 1.00

Required Qty: 1.00

D3537-3 Manufactured No

270 Each 9.0000 1 1

\*D3537-3\*

Wearpad

74500

\*\*

1 m-12/03/20

Location

Loc Qty

Loc Code

FP002

9

76986

9

D3537-1 Manufactured No

270 Each 20.0000 9 9

\*D3537-1\*

Wearpad

80336

\*\*

9 m-12/03/20

Location

Loc Qty

Loc Code

FP002

20

69817

5

77036

15

AN960C10L NAS1149C0332 Purchased No

270 Each 0.0000 80 80

\*AN960C10I \*

washer

120648

\*\*

80 m-12/03/20

AN960C416 NAS1149C0463 Purchased No

270 Each 0.0000 1 1

\*AN960C416\*

washer

117735

\*\*

1 m-12/03/20

D3672-1 Manufactured No

270 Each 936.0000 2 2

\*D3672-1\*

Phenolic Washer

\*\*

m-12/03/20

Location

Loc Qty

Loc Code

FP001

300

66821 ✓

300

ST060

636

72229

136

76277

500

2

X

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

January-24-12 3:57:58 PM

Page 7

Work Order ID: 79322

\*79322\*

Parent Item: D206-642-541

\*D206-642-541\*

Parent Item Name: Replacement Skidtube

Start Date: 24/01/2012

Required Date: 02/02/2012

Start Qty: 1.00

Required Qty: 1.00

AN3C4A

Purchased

No

270

Each

2,799.000

80

80

\*AN3C4A\*

BOLT

121060

\*\*

80 m-12/03/20

Location

Loc Qty

Loc Code

ST350

2799

117313

2

117688

5

117872

10

118112

16

118451

2

118838

4

119749

760

120187

2000

AN4C5A

Purchased

No

270

Each

371.0000

1

1

\*AN4C5A\*

BOLT

\*\*

m-12/03/20

Location

Loc Qty

Loc Code

FP002

18

112243

18

ST355

353

112243 ✓

253

119017

100

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

# Picklist Print

January-24-12 3:57:58 PM

Page 8

Work Order ID: 79322

**\*79322\***

Parent Item: D206-642-541

**\*D206-642-541\***

Parent Item Name: Replacement Skidtube

Start Date: 24/01/2012

Required Date: 02/02/2012

Start Qty: 1.00

Required Qty: 1.00

D2646

Manufactured No

270

Each

94.0000

1

1

**\*D2646\***

Aft Cap

79502

\*\*

M/L 12/03/20

Location

Loc Qty

Loc Code

FP002

94

62678

5

68280

5

70945

1

71038

2

71070

2

73294

1

73825

78

D3413-1

Manufactured No

270

Each

93.0000

1

1

**\*D3413-1\***

Ring

79940

\*\*

M/L 12/03/20

Location

Loc Qty

Loc Code

ST420

4

66387

3

70773

1

ST464

89

75478

30

76754

59

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**DART**

RELEASED

07.02.12

DEO ATTACHED

DESIGN CP	DRAWN BY PH	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED #	APPROVED #	DRAWING NO. D3274	REV. D SHEET 1 OF 4
DATE 06.12.19		TITLE SKIDTUBE ASSEMBLY	SCALE NTS
A	04.03.15	NEW ISSUE	
B	04.08.09	MOVE SADDLE HOLE: 42.14 WAS 42.76	
C	05.03.16	ADD -043; NEW INSERTS	
D	06.12.19	NEW INSERTS, SS WEARSHOE + GASKET	

Qty -041	Qty -043	Part Number	Description
X		D3274-041	SKIDTUBE ASSEMBLY
	X	D3274-043	SKIDTUBE ASSEMBLY
1	1	D2600-1-240	EXTRUSION
1	1	D2646	AFT CAP
12	12	D2649	CROSS BOLT SPACER
12	37	D3275-1	CROSS BOLT SPACER
1	1	D3282-041	FLOAT WEB
1	1	D3285-1	CAP
1	1	D3413-1	RING
1	1	D3415-041	NUT PLATE
1	1	D3535-15	WEARSHOE
1	1	D3535-23	WEARSHOE
1	1	D3535-35	WEARSHOE
1	1	D3535-39	WEARSHOE
1	1	D3536-15	GASKET
1	1	D3536-23	GASKET
1	1	D3536-35	GASKET
1	1	D3536-39	GASKET
9	9	D3537-1	WEARPAD
1	1	D3537-3	WEARPAD
78	78	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, AELS-1032-130)
80	80	AN3C4A	BOLT
1	1	AN4C5A	BOLT
1	1	AN960C416	WASHER
80	80	AN960C10L	WASHER
2	2	CCR264SS3-3	RIVET
2	2	CR3212-4-03	RIVET
2	2	NAS1515H3L	WASHER

## GENERAL NOTES:

1. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
2. DAMAGE TOLERANCE ON FWD BEND:  
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 7 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
3. ALL HOLES DRILLED ON CENTERLINES.
4. BOND D3282-041 FLOAT WEB INTO D3274-1-3 OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 015. ENSURE HOLES LINE-UP.
5. WELDING TO BE DONE PER DART QSI 004.
6. FINISH: - ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1  
- POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
7. DRILL Ø0.297 HOLES FOR ALS7-1032-130 INSERTS USING DT3274-1T2 BEFORE FINISH. INSTALL ALS7-1032-130 INSERTS AFTER FINISH. SEAL WEARSHOE BOLTS WITH SIKAFLEX -241/-291.
8. SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.

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SUBJECT TO AMENDMENT

WITHOUT NOTICE

CHECK ORDER

NO. 79322

M.C.J.

12/01/24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

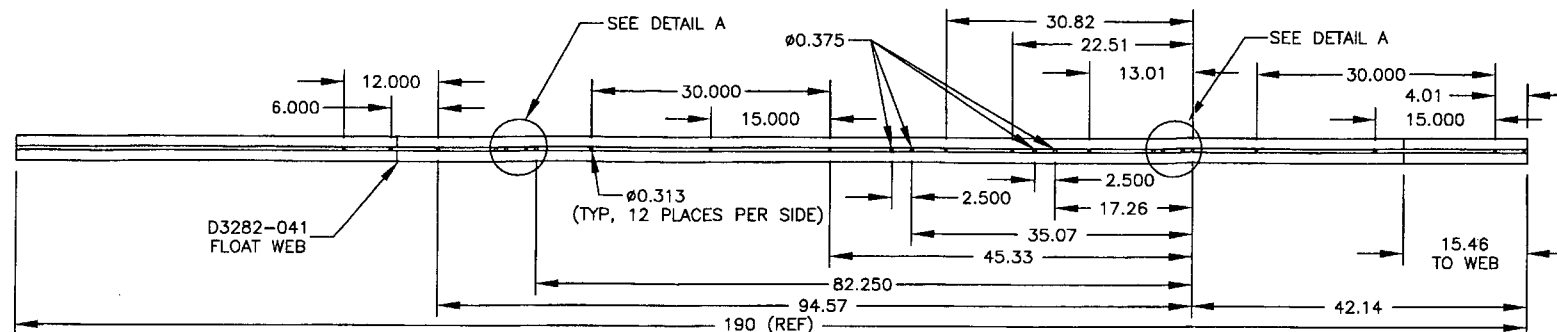
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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

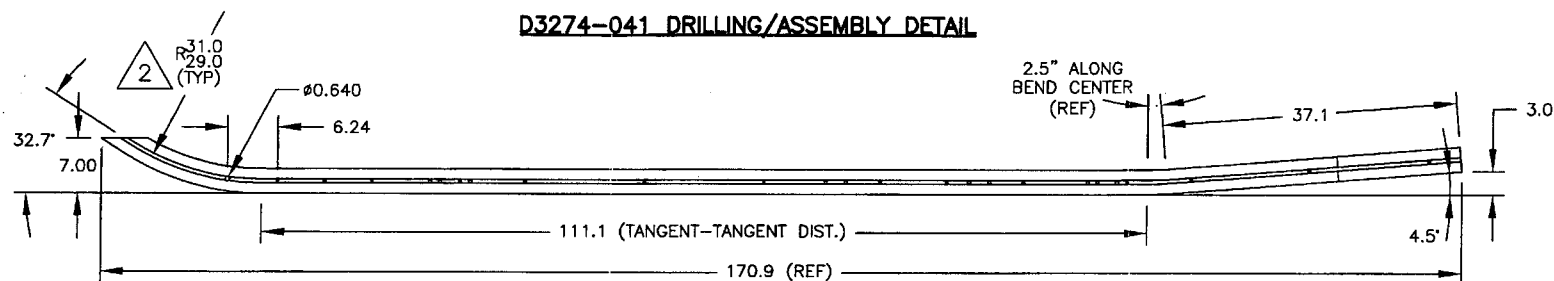
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79322

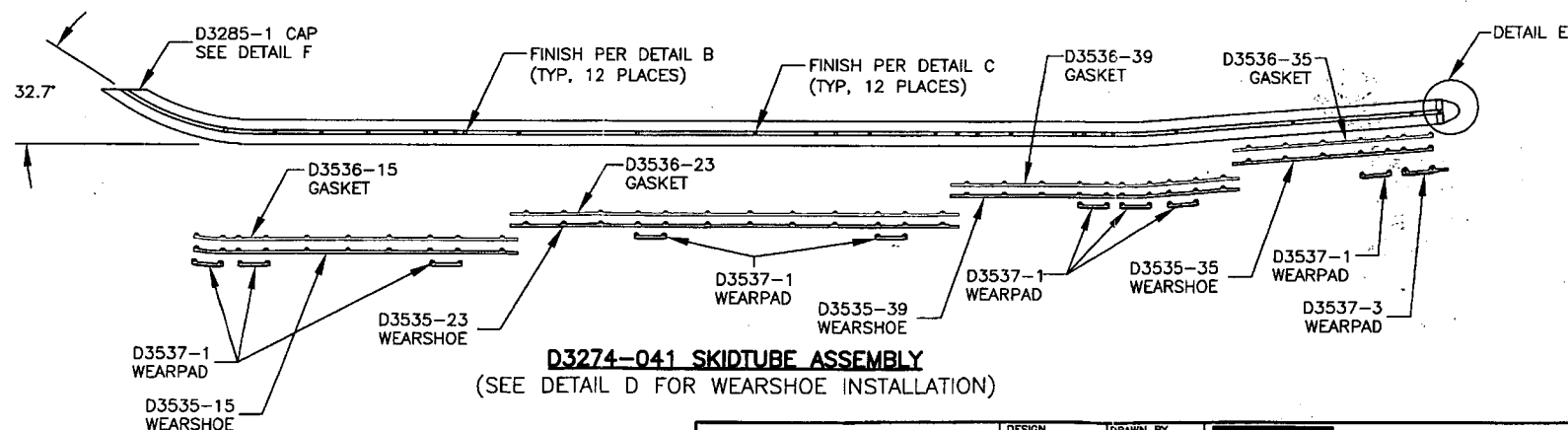
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**D3274-041 DRILLING/ASSEMBLY DETAIL**



**D3274-041 BEND/DRILLING DETAIL**



**D3274-041 SKIDTUBE ASSEMBLY**  
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

RELEASED

07.02.12

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DESIGN CP	DRAWN BY PH	<b>DART</b> DART AEROSPACE USA, INC. PORT HADLOCK, WA	REV. D
CHECKED #	APPROVED #		SHEET 2 OF 4
DATE 06.12.19	DRAWING NO. D3274	TITLE SKIDTUBE ASSEMBLY	SCALE 1:15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

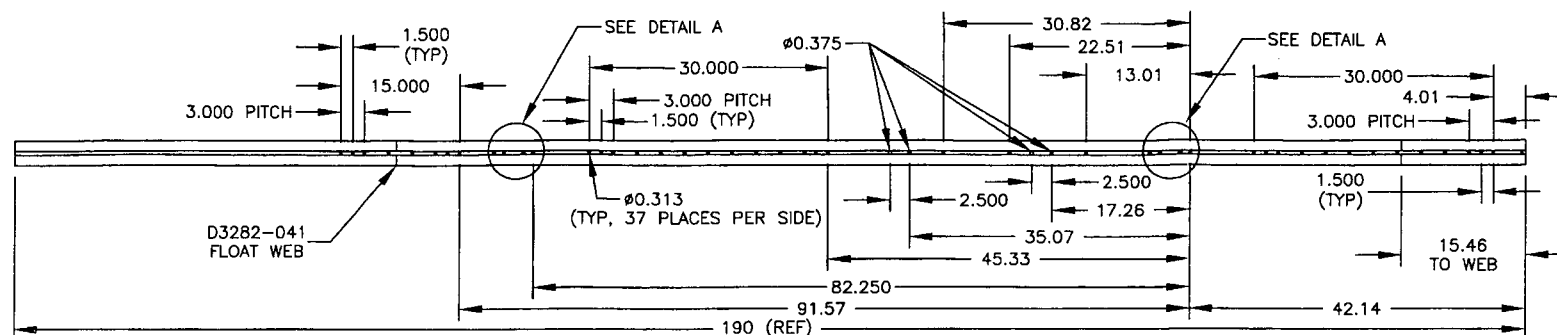
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

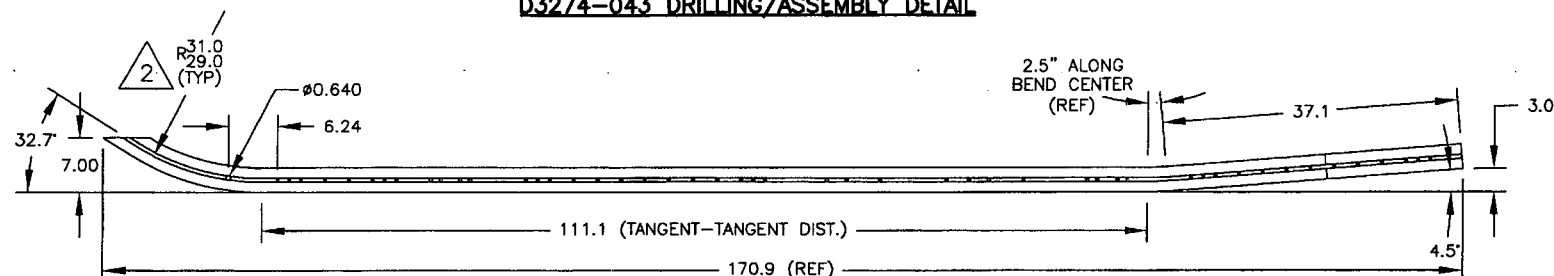
**NOTE:** Date & initial all entries



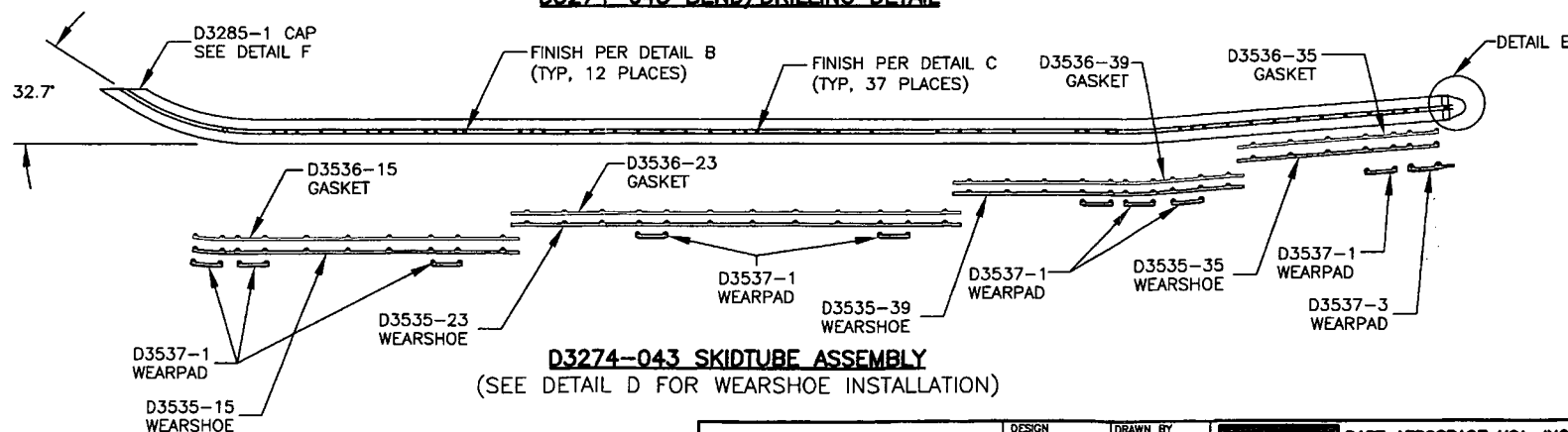
DEO ATTACHED



**D3274-043 DRILLING/ASSEMBLY DETAIL**



**D3274-043 BEND/DRILLING DETAIL**



**D3274--043 SKIDTUBE ASSEMBLY**  
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

RELEASED

07.02.12

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DART AEROSPACE USA, INC.

DESIGN
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C

**DRAWN BY**

	DR
--	----

**DART**

**DART AEROSPACE USA, INC.**  
PORT HADLOCK, WA

CHECK

KED

	APPROVED
--	----------

DRAWING NO.

REV. D

1

2

1

D3274

SHEET 3 OF 4

2.11

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302.5

SCALE

DATE \_\_\_\_\_

FILE

SCALE

06.12

12.19

\_\_\_\_\_

SKIDTUBI

**1:15**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

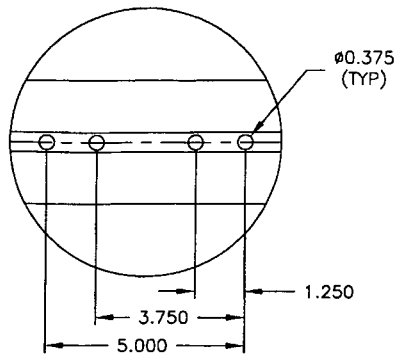
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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

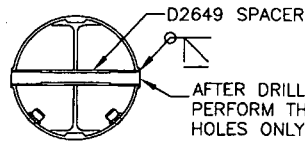
**NOTE:** Date & initial all entries

79322

# **DETAIL A: DRILL DETAIL**

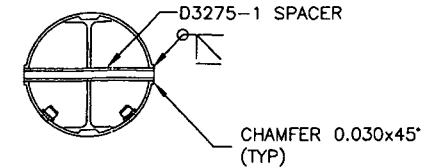


## **DETAIL B** FOR 0.375 HOLES ONLY

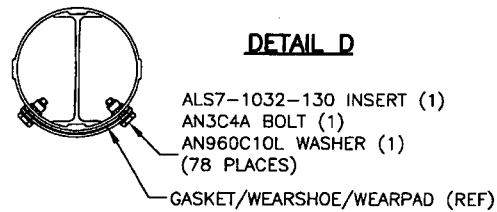


- AFTER DRILLING AND BENDING ASSEMBLY  
PERFORM THE FOLLOWING FOR 0.375  
HOLES ONLY:
1. CHAMFER HOLE 0.030x45°
  2. INSERT D2649 SPACER
  3. WELD INTO PLACE AND GRIND FLUSH
  4. C'BORE TO 0.313x0.75 DEEP

## **DETAIL C** FOR 0.313 HOLES ONLY



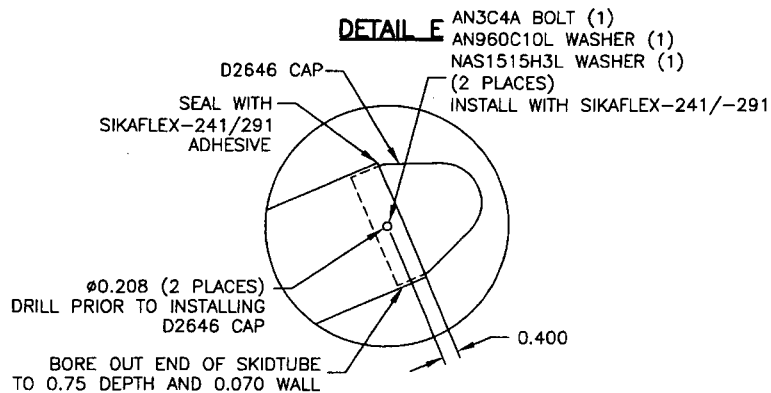
## **DETAIL D**



- ALS7-1032-130 INSERT (1)  
AN3C4A BOLT (1)  
AN960C10L WASHER (1)  
(78 PLACES)

GASKET/WEARSHOE/WEARPAD (REF)

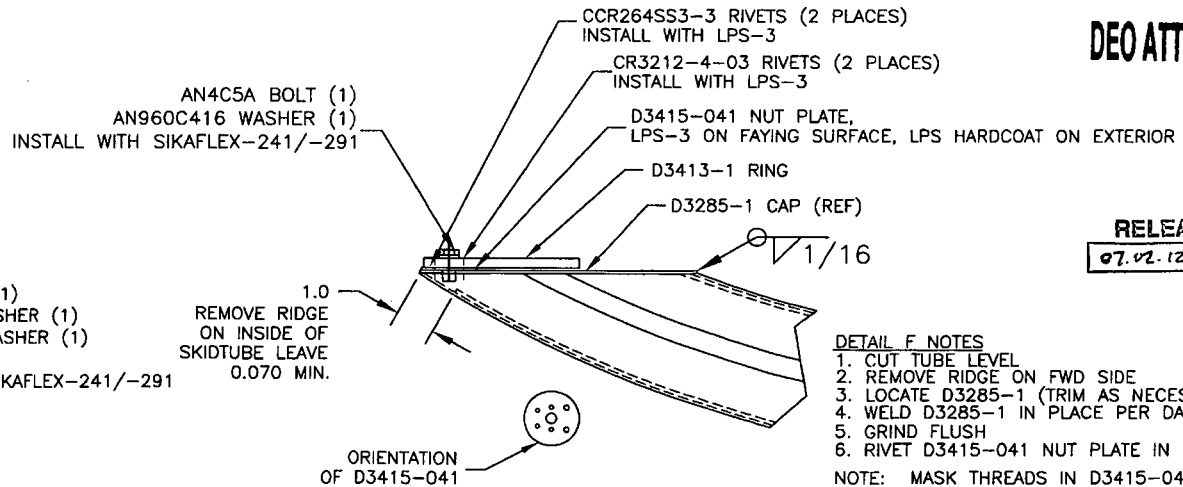
## **DETAIL E**



- AN3C4A BOLT (1)  
AN960C10L WASHER (1)  
NAS1515H3L WASHER (1)  
(2 PLACES)  
INSTALL WITH SIKAFLEX-241/-291

SEAL WITH  
SIKAFLEX-241/291  
ADHESIVE

## **DETAIL F: END FINISHING DETAIL**



CCR264SS3-3 RIVETS (2 PLACES)  
INSTALL WITH LPS-3

CR3212-4-03 RIVETS (2 PLACES)  
INSTALL WITH LPS-3

D3415-041 NUT PLATE,  
LPS-3 ON FAYING SURFACE, LPS HARDCOAT ON EXTERIOR

D3413-1 RING

D3285-1 CAP (REF)

REMOVE RIDGE  
ON INSIDE OF  
SKIDTUBE LEAVE  
0.070 MIN.

ORIENTATION  
OF D3415-041

DEO ATTACHED

RELEASED

07.02.12

## **DETAIL F NOTES**

1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D3285-1 (TRIM AS NECESSARY)
4. WELD D3285-1 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D3415-041 NUT PLATE IN PLACE

NOTE: MASK THREADS IN D3415-041  
PRIOR TO FINISH

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CHECKED	DATE	CP	PH	DRAWING NO.	REV. D
	06.12.19			D3274	SHEET 4 OF 4
				TITLE	SCALE
				SKIDTUBE ASSEMBLY	1:3

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

77322

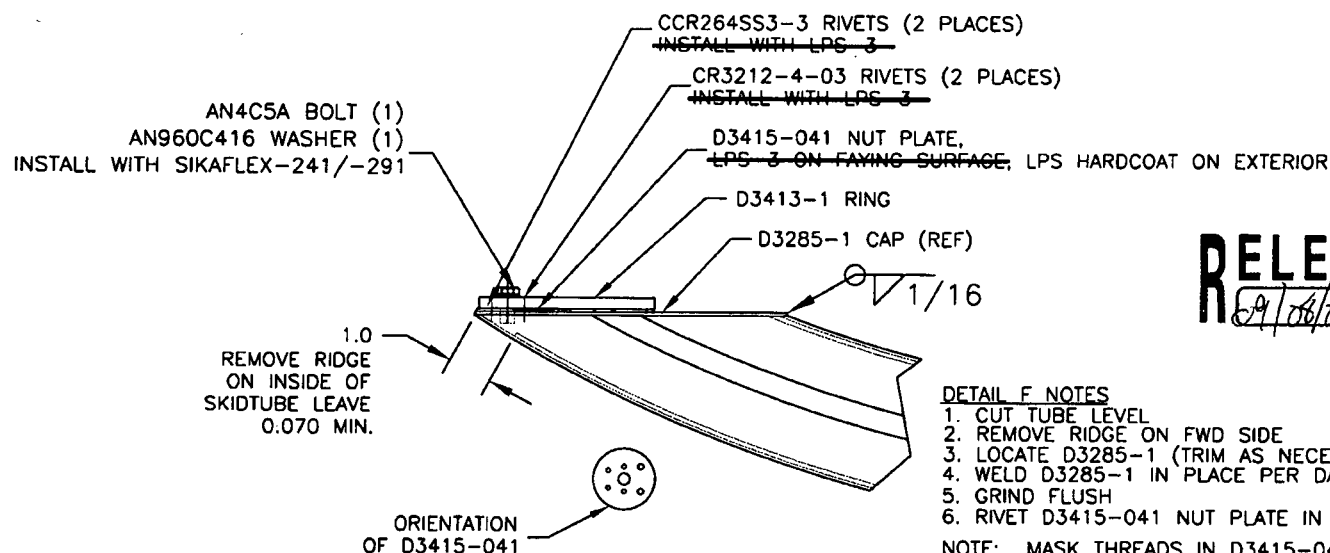
DRAWING NO. D3274	TITLE SKIDTUBE ASSEMBLY	REV. D	DART AEROSPACE USA, INC ENGINEERING ORDER	D.E.O. NO. D3274-D-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN CP	CHECKED 1	MFG. APPR. M	APPROVED JAP	DE APPR. H		
DATE 09.06.17	DATE 09.06.23	DATE 09/06/23	DATE 09/06/23	DATE 09.06.23		

LPS-3 IS NO LONGER USED DURING ASSEMBLY OF SKIDTUBE.

AMEND NOTE 8: "~~SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES 'LPS-3' AFTER FINISH AND INSTALLATION OF INSERTS.~~  
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES 'LPS PROCYON' AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF  
POWDER COATING WITH MEK DEGREASER."

AMEND DETAIL F AS SHOWN:

### DETAIL F: END FINISHING DETAIL



- DETAIL F NOTES**
1. CUT TUBE LEVEL
  2. REMOVE RIDGE ON FWD SIDE
  3. LOCATE D3285-1 (TRIM AS NECESSARY)
  4. WELD D3285-1 IN PLACE PER DART QSI 004
  5. GRIND FLUSH
  6. RIVET D3415-041 NUT PLATE IN PLACE
- NOTE: MASK THREADS IN D3415-041 PRIOR TO FINISH

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng/ Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

NO. 285

AWS D17.1.2001  
QUALIFICATION TEST RECORD

Name: Barclay Elliott  
Job number: 79322  
Part number: A206-642-541  
Description: Skid tube  
Welding Process: Tig[☒] Mig[ ]  
Base material: Aluminum  
Current: AC[☒] DC[ ]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[ ]  
Penetration: pass[☒] fail[ ]

UNACCEPTABLE

Cracks: pass[☒] fail[ ]  
Undercut: pass[☒] fail[ ]  
Pin holes: pass[☒] fail[ ]  
Overlap (cold lap): pass[☒] fail[ ]  
Porosity (surface): pass[☒] fail[ ]  
Coloration: pass[☒] fail[ ]

Qualifier: David Hunt Date of Test Coupon 18.03.14  
Welder: Barclay Elliott Date of Test Coupon 18.03.14

The above named individual is qualified in accordance with AWS D17.1.2001 to weld